

## LA-UR-21-31333

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Title: Images and Geospatial Data Embedded in ESRI Story Map for GIS Day Presentation

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Event is hosted by LANL Research Library.

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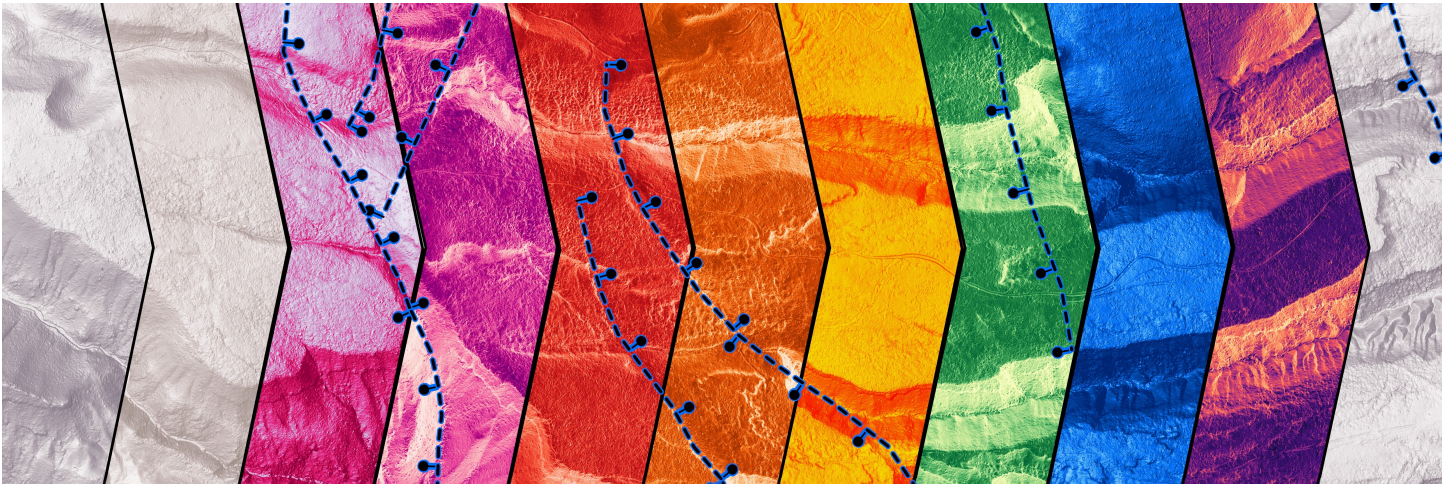
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**Images and Geospatial  
Data Embedded in  
ESRI Story Map  
for GIS Day Presentation**

The following pages portray images and geospatial data embedded in an ESRI, web-based interactive Story Map presentation that will be delivered on November 17, 2021 in recognition for International GIS Day.





# GIS in THE G2A!

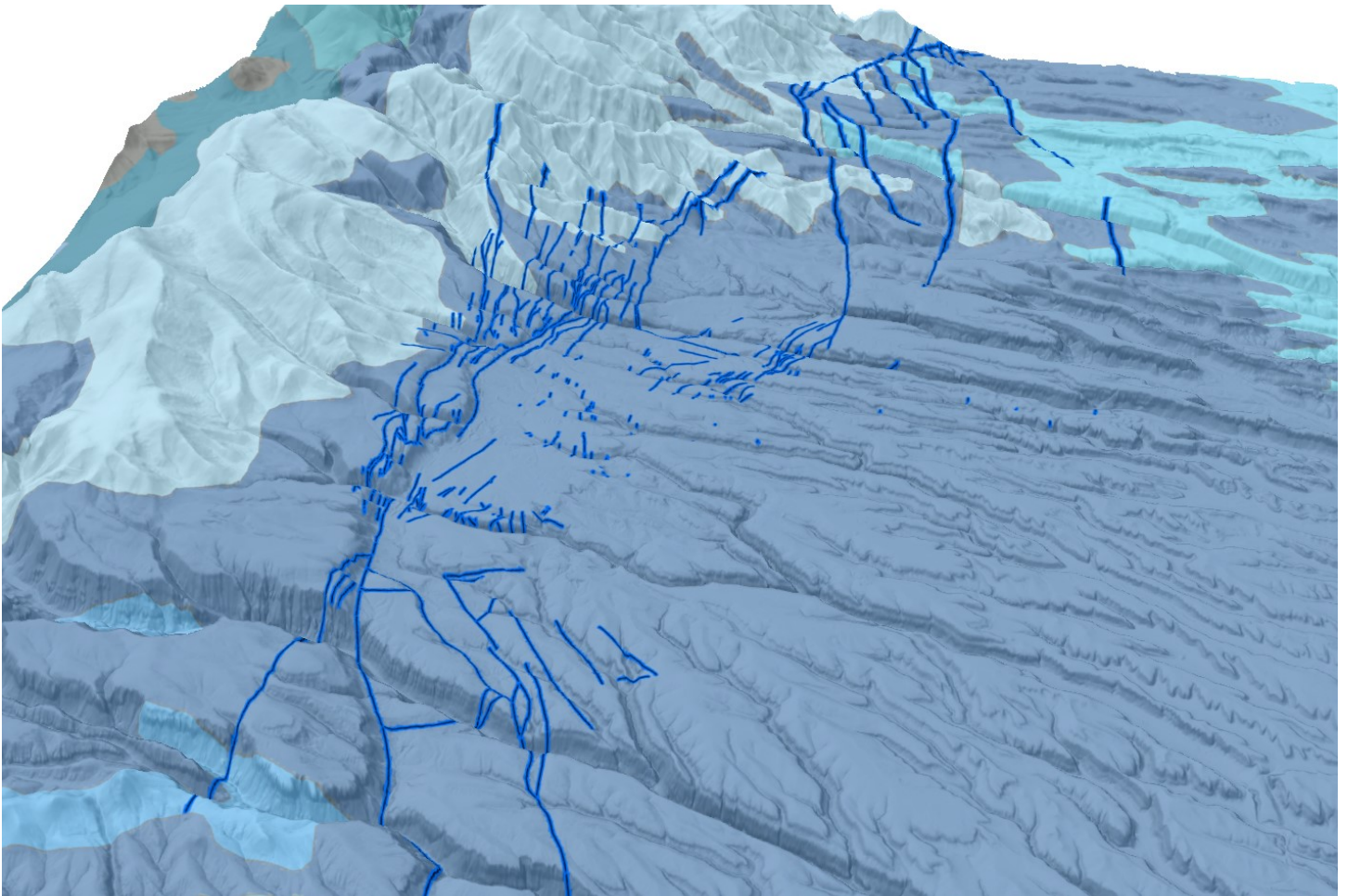
Anita Lavadie-Bulnes

LA-UR XX-XXX

Draft

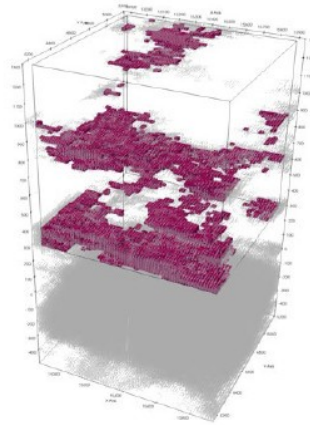
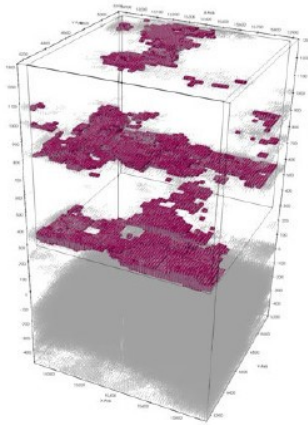
## Geology and Geospatial Analysis Team (G2A)

**Small but Mighty Team!**



### **Resident Pajarito Plateau geology experts**

## 9 Bedrock Volcanics



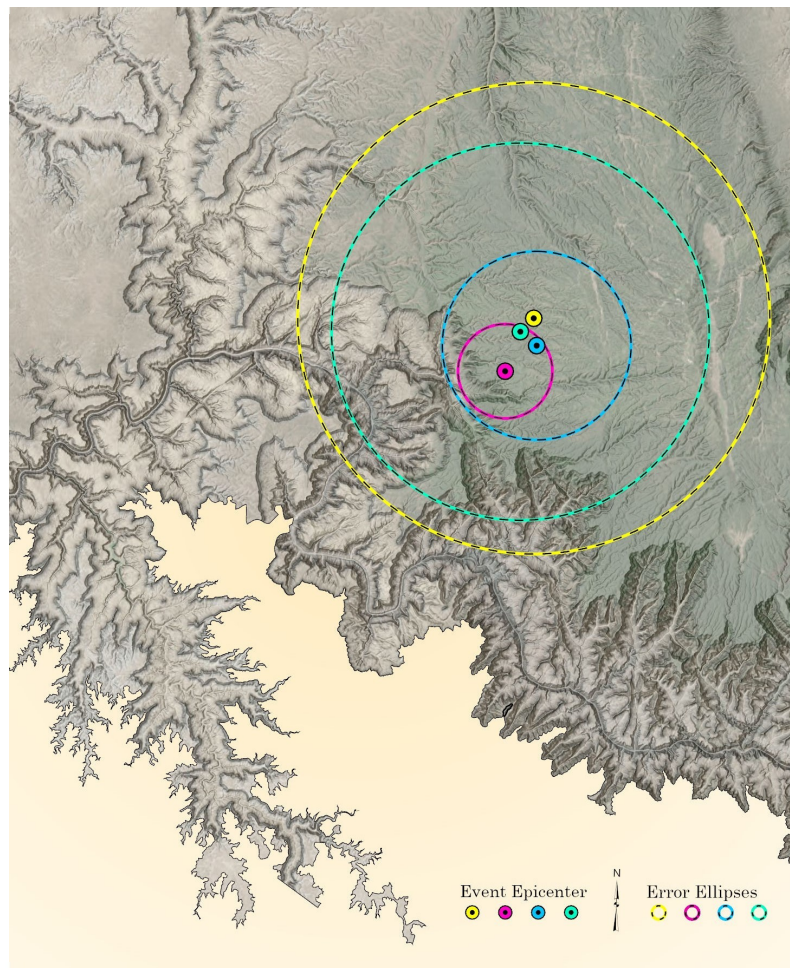
**Specialize in Three-Dimensional Geologic Framework  
Modelling**





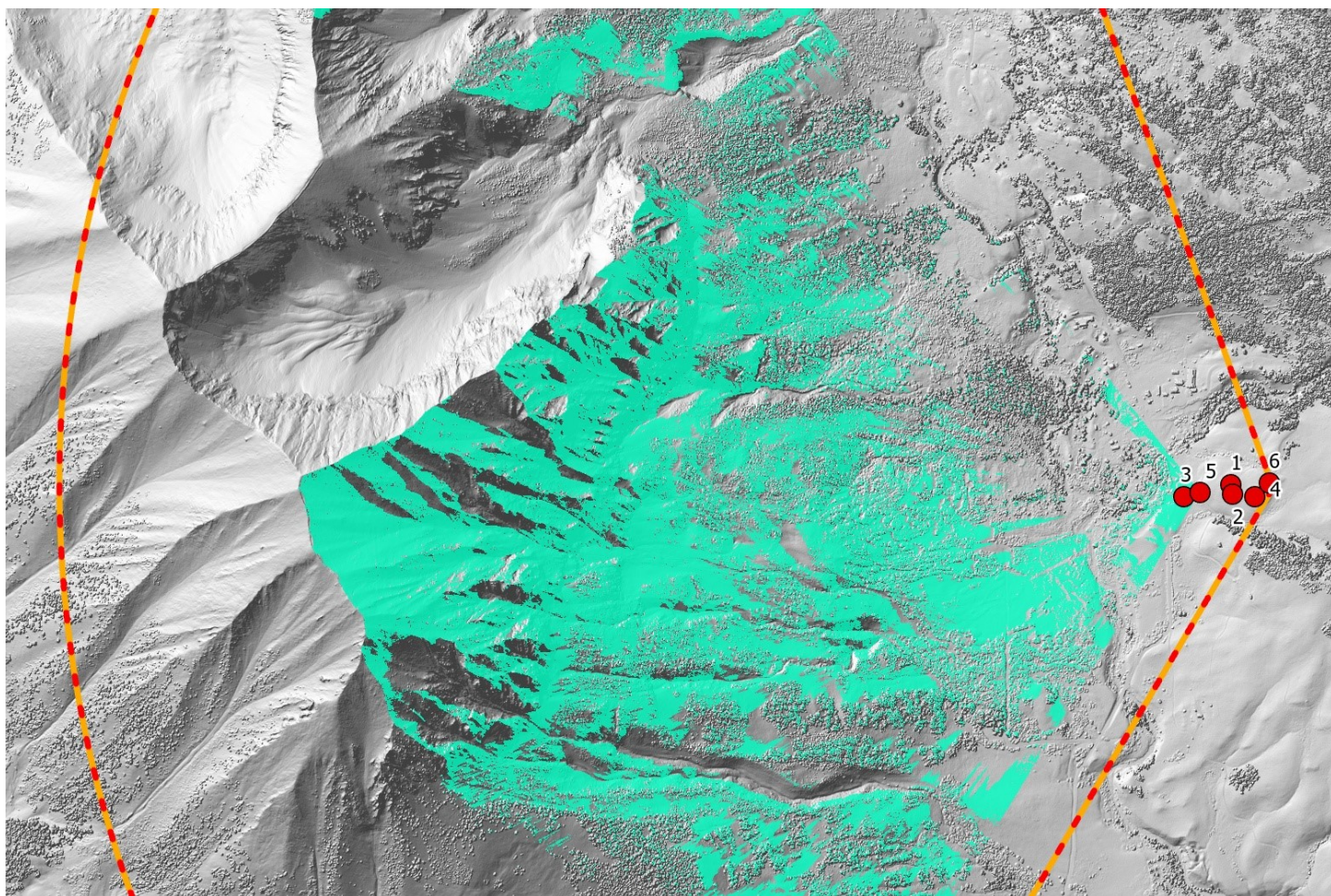
## **Unmanned Aerial System (UAS) Sensor Deployment and Data Collection**

**Drone Team!**



## Geology and Geospatial Expertise in Global Security Efforts



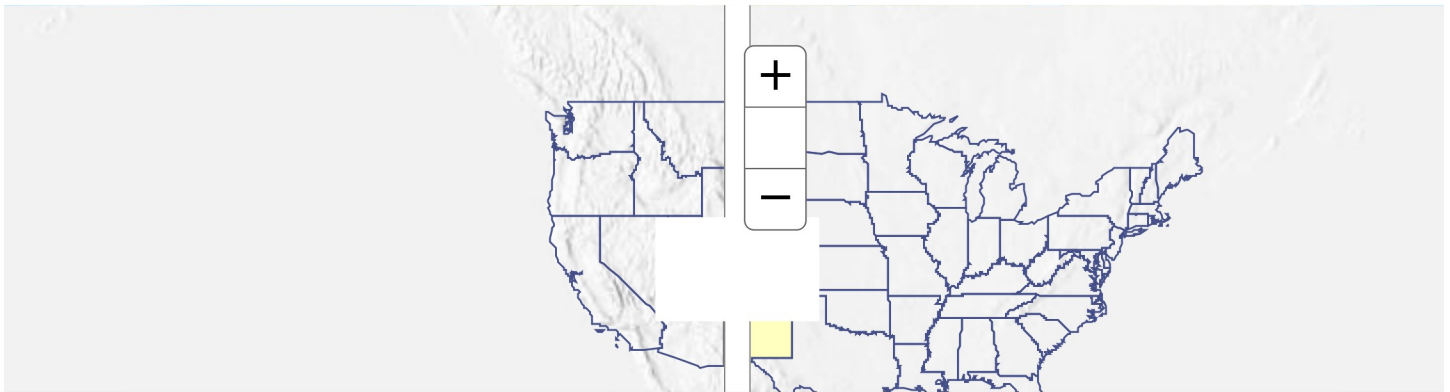


## Global-scale location intelligence and mapping

The following illustrations display an interactive map showing LANL's Light Detection and Ranging (LiDAR) Digital Elevation Model (DEM) and aerial Imagery data collected in 2014. The first screen shot shows the application interface, The following four panels convey imagery and a corresponding multidirectional inversely rendered elevation hillshade for two locations. The last panel is a multidirectional hillshade for the LiDAR extent and a vertices-only rendering of LANL faults, also within the same extent as the LiDAR data. These data will be used during a Lab-wide GIS day presentation on November 17, 2021.

# LiDAR Fault Mapping

LA-UR-21-20864



## 1 The study site is located in north central New Mexico

Esri, HERE, Garmin, FAO, NOAA, EPA | Airbus,USGS,...

 **esri** A Story Map



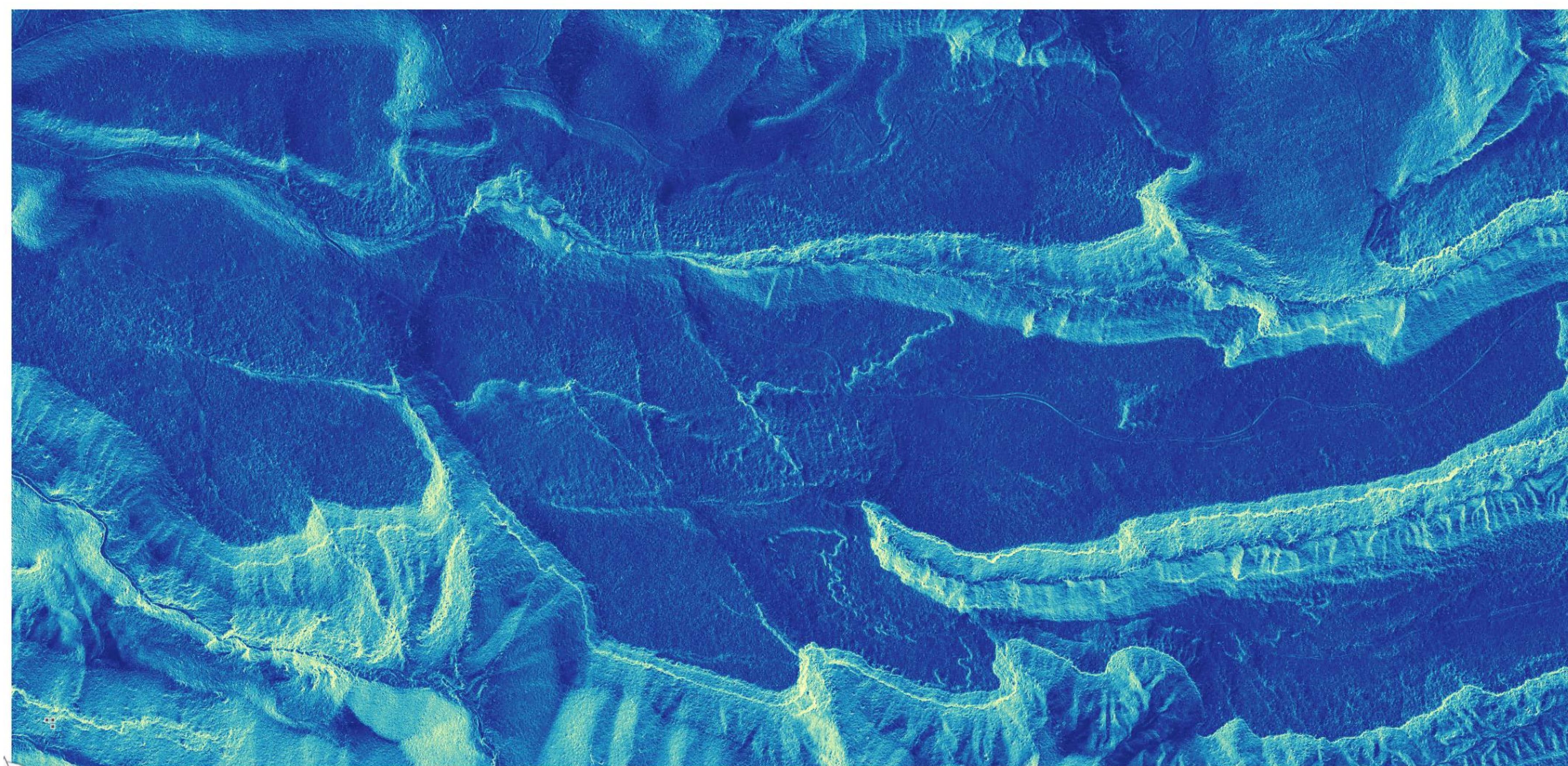
LiDAR Fault Mapping

## Applications in Change Detection Analysis

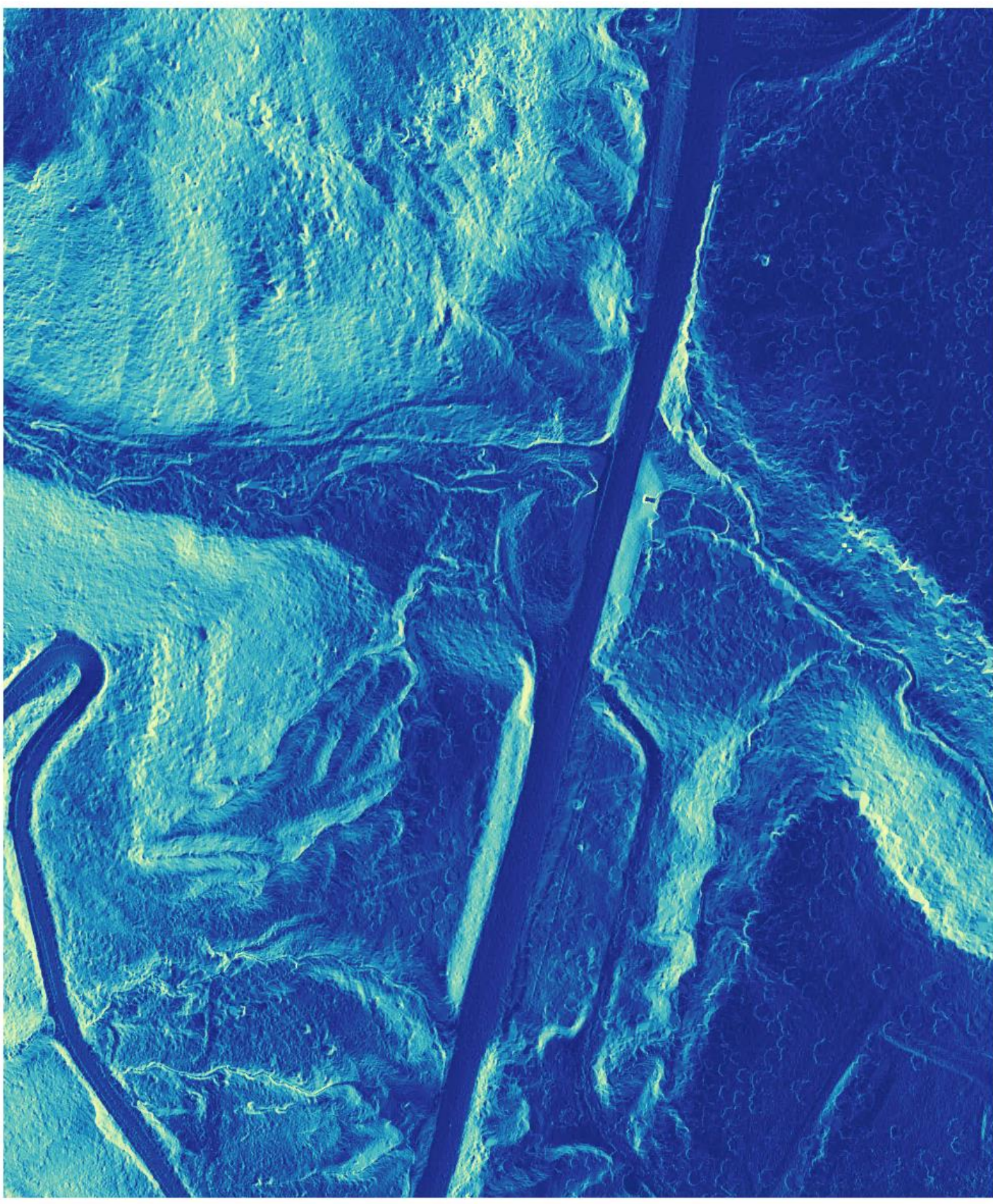




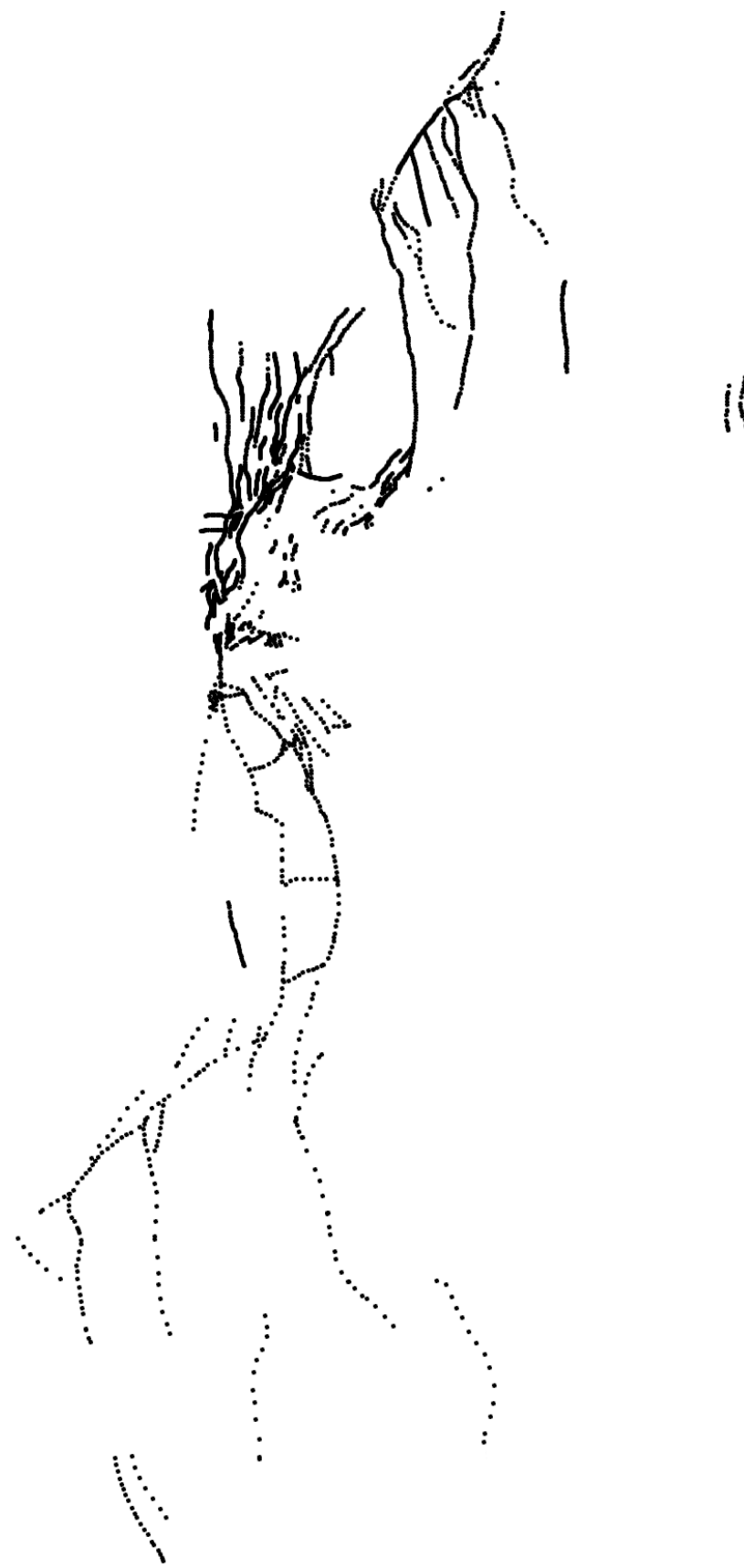






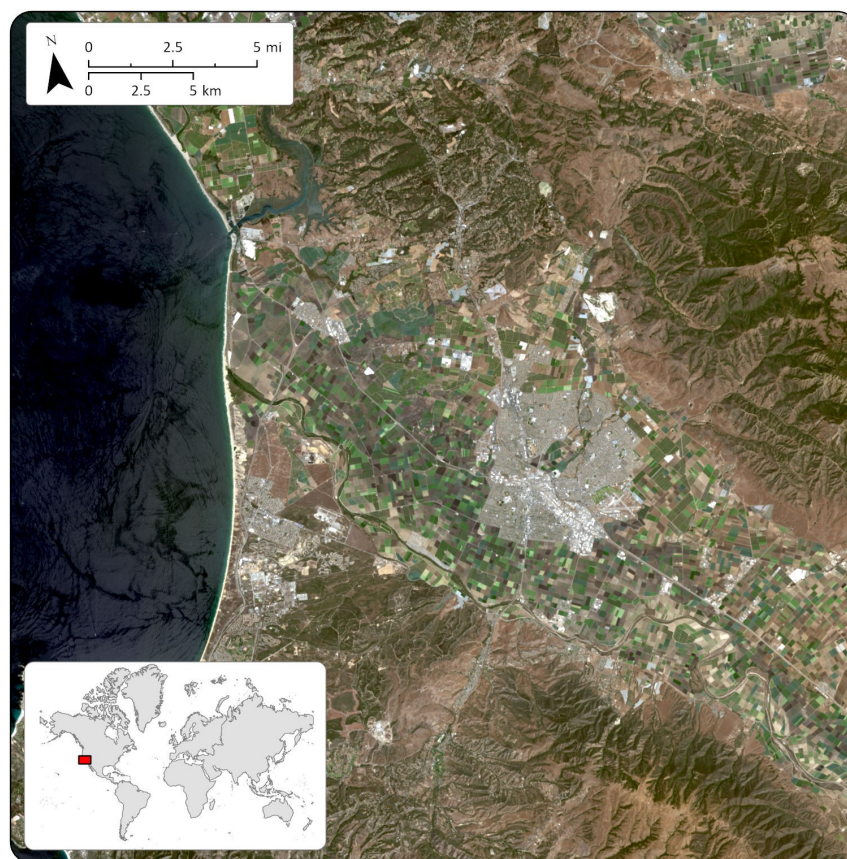




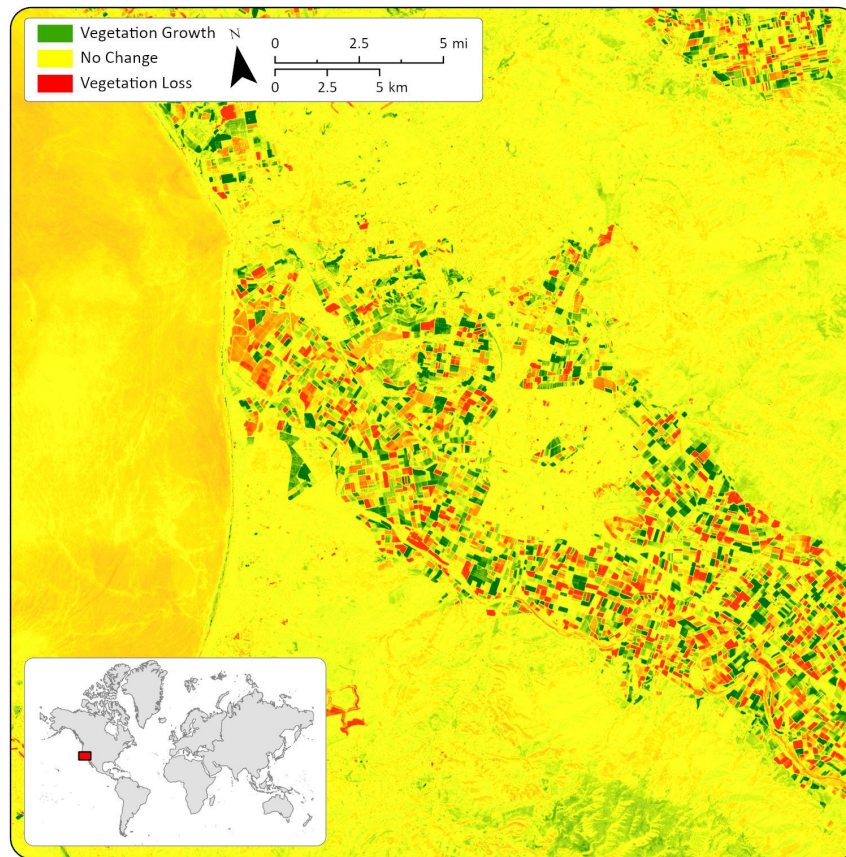


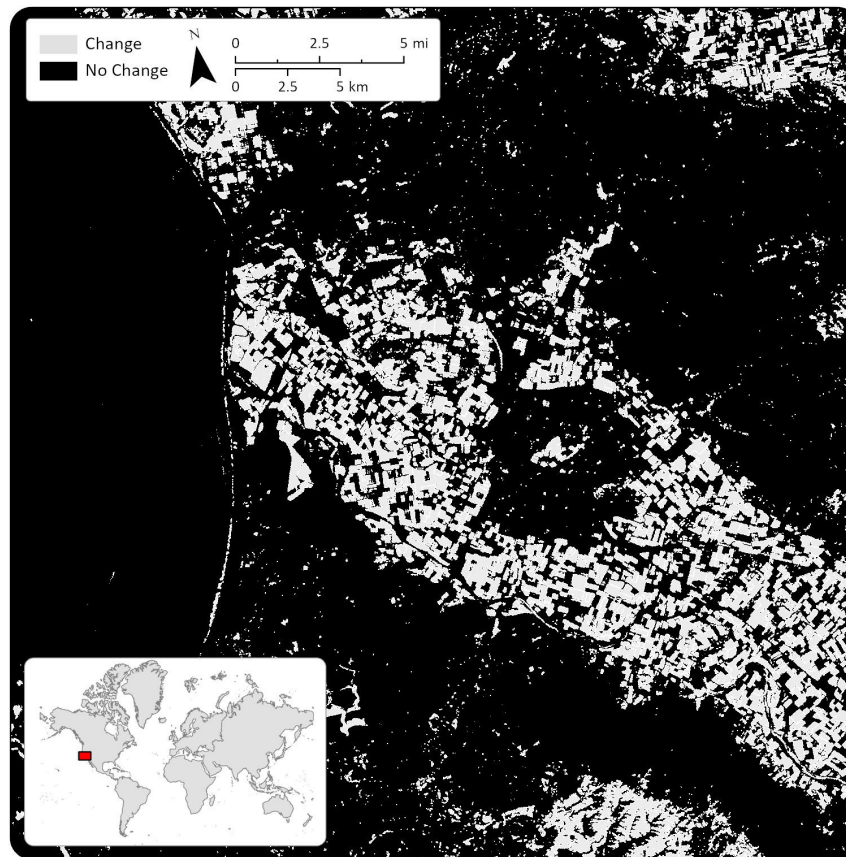
The following four images are embedded in ESRI Story Map slideshow application.











## **An Interactive Approach!**

The following screen shot portrays the interface for two Story Map applications. The following images are the geospatial data embedded within them.



## I Spyglass With my Little Eye

The Spyglass lens allows you to view our two differently-rendered change detection results and investigate what changes occurred at this Nevada site between 1995 and 1999. The Change-No-Change layer, where black represent no change and pink represents change, is a simplified rendering of the Change Detection



### 1 Pan, Zoom & Explore!

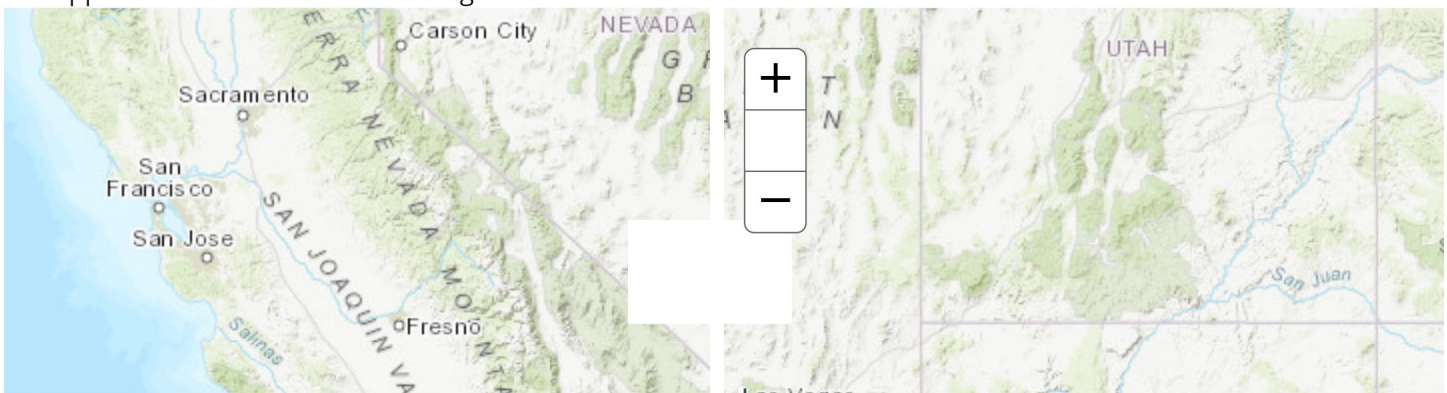
Click the home or zoom button on the upper left side of the map to view the image.



I Spyglass With my Little Eye

## Swipe Before and After

This swipe application allows you to view 1995 (before) and 1999 (after) imagery side by side. Once you've found a pattern of interest from the Spyglass application, zoom and pan to the desired location in the Swipe application to discover what changed between 1995 and 1999.



### 1 Pan, Zoom & Explore!

1995 imagery is located left of the swipe bar and 1999 imagery to the right. Practice swiping the bar back and forth. Zoom in and out using the tools in the upper left hand corner of the map to explore different areas. Can



Swipe Before and After

